MCM CUSTOM AUDIO

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OPERATION MANUAL

PUBLIC ADDRESS SYSTEM

# MPA-10

## MIXER AMPLIFIER

Please follow the instructions in this manual to obtain the optimum results from this unit.
We also recommend that you keep this manual handy for future reference.

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# 1. SAFETY PRECAUTIONS

- Be sure to read the instructions in this section carefully before use.
- Make sure to observe the instructions in this manual as the conventions of safety symbols and messages regarded as very important precautions are included.
- We also recommend you keep this instruction manual handy for future reference.

### Safety Symbol and Message Conventions

Safety symbols and messages described below are used in this manual to prevent bodily injury and property damage which could result from mishandling. Before operating your product, read this manual first and understand the safety symbols and messages so you are thoroughly aware of the potential safety

| | |
|---|---|
| ⚠ **WARNING** | Indicates a potentially hazardous situation which, if mishandled, could result in death or serious personal injury. |
| ⚠ **CAUTION** | Indicates a potentially hazardous situation which, if mishandled, could result in moderate or minor personal injury, and/or property damage. |

## ⚠ WARNING

**When Installing the Unit**

- Do not expose the unit to rain or an environment where it may be splashed by water or other liquids, as doing so may result in fire or electric shock.
- Use the unit only with the voltage specified on the unit. Using a voltage higher than that which is specified may result in fire or electric shock.
- Do not cut, kink, otherwise damage nor modify the power supply cord. In addition, avoid using the power cord in close proximity to heaters, and never place heavy objects -- including the unit itself -- on the power cord, as doing so may result in fire or electric shock.
- Be sure to replace the unit's terminal cover after connection completion. Because high voltage is applied to the speaker terminals, never touch these terminals to avoid electric shock.
- Be sure to ground to the safety ground (earth) terminal to avoid electric shock. Never ground to a gas pipe as a catastrophic disaster may result.
- Avoid installing or mounting the unit in unstable locations, such as on a rickety table or a slanted surface. Doing so may result in the unit falling down, causing personal injury and/or property damage.

**When the Unit is in Use**

- Should the following irregularity be found during use, immediately switch off the power, disconnect the power supply plug from the AC outlet and contact your nearest dealer. Make no further attempt to operate the unit in this condition as this may cause fire or electric shock.
  - If you detect smoke or a strange smell coming from the unit.
  - If water or any metallic object gets into the unit
  - If the unit falls, or the unit case breaks
  - If the power supply cord is damaged (exposure of the core, disconnection, etc.)
  - If it is malfunctioning (no tone sounds.)
- To prevent a fire or electric shock, never open nor remove the unit case as there are high voltage components inside the unit. Refer all servicing to your nearest dealer.
- Do not place cups, bowls, or other containers of liquid or metallic objects on top of the unit. If they accidentally spill into the unit, this may cause a fire or electric shock.
- Do not insert nor drop metallic objects or flammable materials in the ventilation slots of the unit's cover, as this may result in fire or electric shock.

# ⚠ CAUTION

**When Installing the Unit**

- Never plug in nor remove the power supply plug with wet hands, as doing so may cause electric shock.
- When unplugging the power supply cord, be sure to grasp the power supply plug; never pull on the cord itself. Operating the unit with a damaged power supply cord may cause a fire or electric shock.
- When moving the unit, be sure to remove its power supply cord from the wall outlet. Moving the unit with the power cord connected to the outlet may cause damage to the power cord, resulting in fire or electric shock. When removing the power cord, be sure to hold its plug to pull.
- Do not block the ventilation slots in the unit's cover. Doing so may cause heat to build up inside the unit and result in fire.
- Avoid installing the unit in humid or dusty locations, in locations exposed to the direct sunlight, near the heaters, or in locations generating sooty smoke or steam as doing otherwise may result in fire or electric shock.

**When the Unit is in Use**

- Do not place heavy objects on the unit as this may cause it to fall or break which may result in personal injury and/or property damage. In addition, the object itself may fall off and cause injury and/or damage.
- Make sure that the volume control is set to minimum position before power is switched on. Loud noise produced at high volume when power is switched on can impair hearing.
- Do not operate the unit for an extended period of time with the sound distorting. This is an indication of a malfunction, which in turn can cause heat to generate and result in a fire.
- Contact your dealer as to the cleaning. If dust is allowed to accumulate in the unit over a long period of time, a fire or damage to the unit may result.
- If dust accumulates on the power supply plug or in the wall AC outlet, a fire may result. Clean it periodically. In addition, insert the plug in the wall outlet securely.
- Switch off the power, and unplug the power supply plug from the AC outlet for safety purposes when cleaning or leaving the unit unused for 10 days or more. Doing otherwise may cause a fire or electric shock.

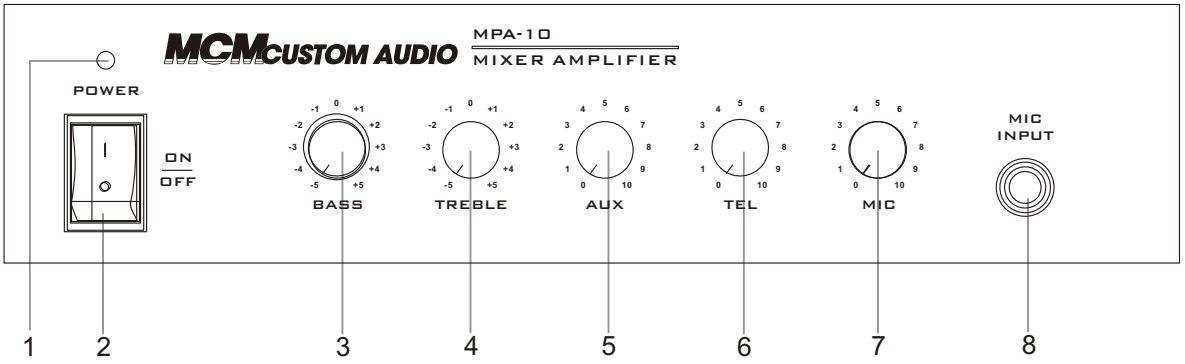
An all-pole mains switch with a contact separation of at least 3 mm in each pole shall be incorporated in the electrical installation of the building.

## 2. GENERAL DESCRIPTION

1. 1 channel MIC one-port input (5mv 1Kohms) and 1 channel (300mv 10Kohms) AUX input.
2. 1 channel TEL input (sensitivity: 1V 2Kohms).
3. Built in treble and bass adjustment
   bass: +/-10dB @ 100Hz
   treble: +/- 10dB @ 10KHz
4. built in priority functions. Priority level is as follows:
   Aux is default signal
   MIC input will override the Aux input only
   Telephone input will override both MIC and AUX input

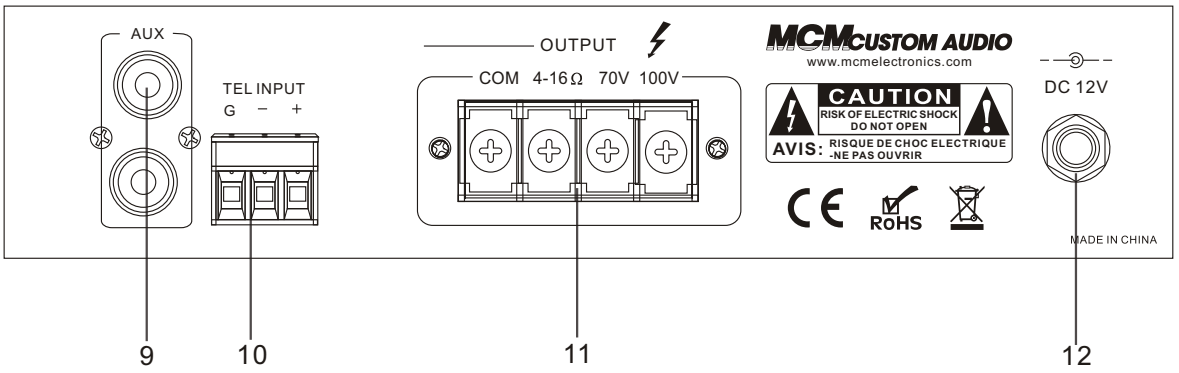
# 3. NOMENCLATURE AND FUNCTIONS

## 3.1 FRONT PANEL




1. **POWER**
   Power indicator
2. **POWER SWITCH**
   On top of the opening Power
   Press the end, power shut down
3. **BASS**
   Adjust bass response. Rotate clockwise to increase bass output and anticlockwise to reduce it.
4. **TREBLE**
   Adjust treble response. Rotate clockwise to increase treble output and anticlockwise to reduce it.
5. **AUX**
   AUX volume control
6. **TEL**
   TEL volume control
7. **MIC**
   MIC volume controll
8. **MIC INPUT**
   MIC1 input 1/4 inch microphone jack input

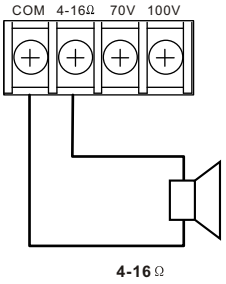
## 3.2 REAR PANEL

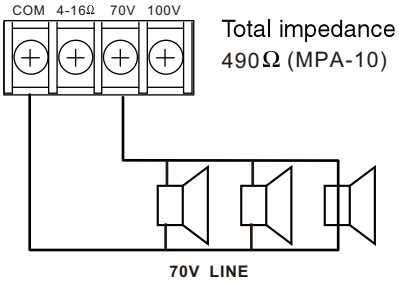


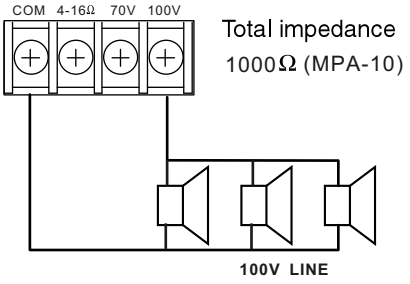

9. **AUX input**
   AUX for extra equipments input
10. **TEL INPUT**
11. **SPEAKER TERMINALS**
    Connectors for 4-16 ohms or 70V and 100V speaker
12. **12V DC POWER INPUT**

# 4. CONNECTIONS

## SPEAKER CONNECTIONS




**Notes**

- Both the 4 – 16 Ω and **70V**/100 V terminals cannot be used at the same time.
- Impedances indicated in the figures represent the total speaker system (load) impedances.

## ⚠ WARNING

Be sure to attach the supplied terminal cover after connection completion. Because high voltage is applied to the speaker terminals, never touch these terminals to avoid electric shock.

# 5. MACHINE OPERATION

## OPERATION ATTENTION

The four output connectors only can choose two connectors work together. If voltage is 70V/100V, the speakers must be with transformer and make sure the total power wattage of speaker is 15% less than the power wattage of amplifier.

## GUIDANCE OF EXCLUDING ERRORS

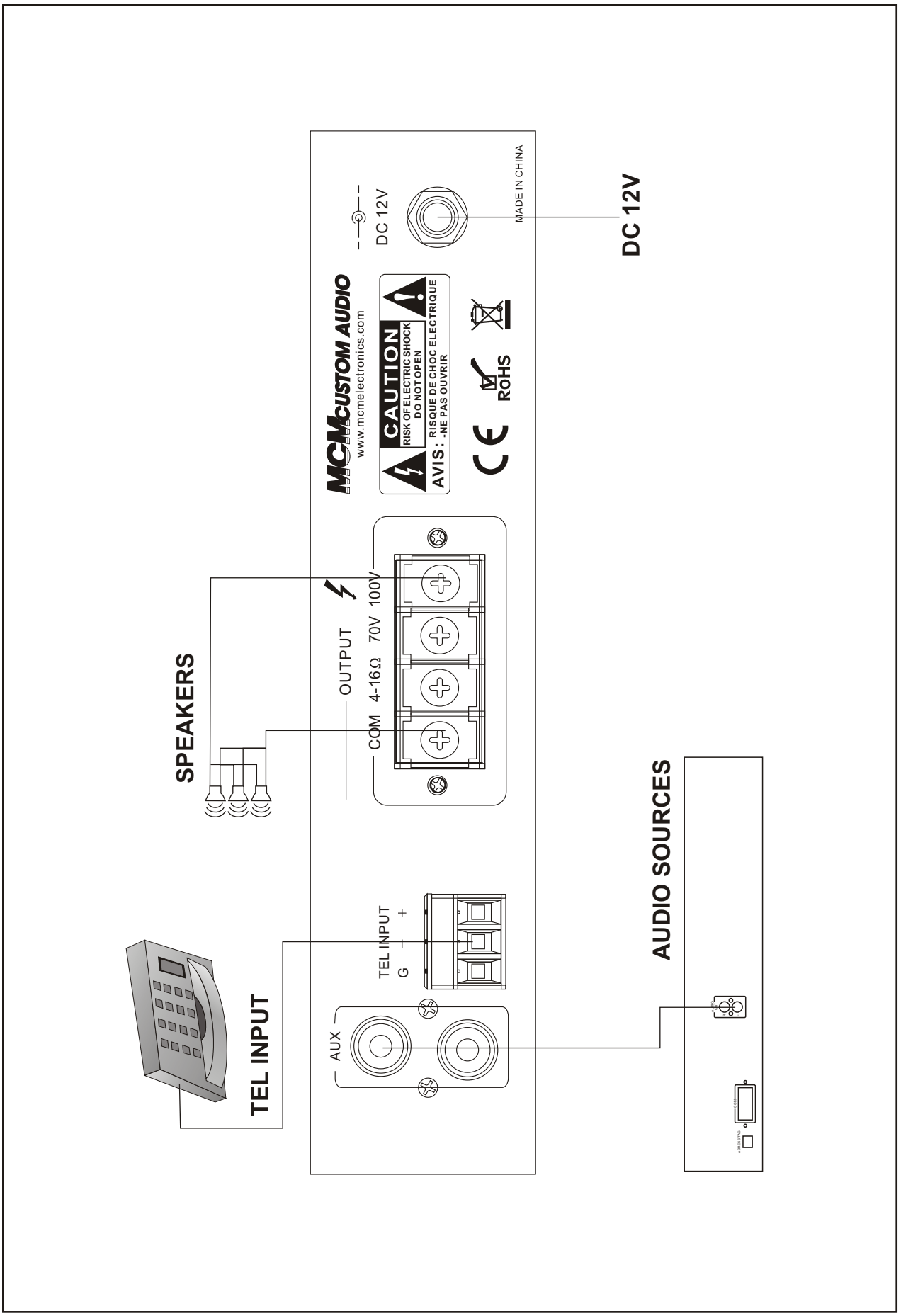
| Phenomena | Cause |
|---|---|
| All the wires are connected well but no voice output | 1 No power or wrong plug connection<br>2 Fuse is burned<br>3 Volume is town off<br>4 No input signal |
| Power on but alarming signal | 1 Overloading or short circuit<br>2 Voltage is not stable, too high or low |
| No voice output in normal condition | 1 Machine is in protection condition in case of high temperature<br>2 Wrong wire connection |

## MUTE FUNCTION

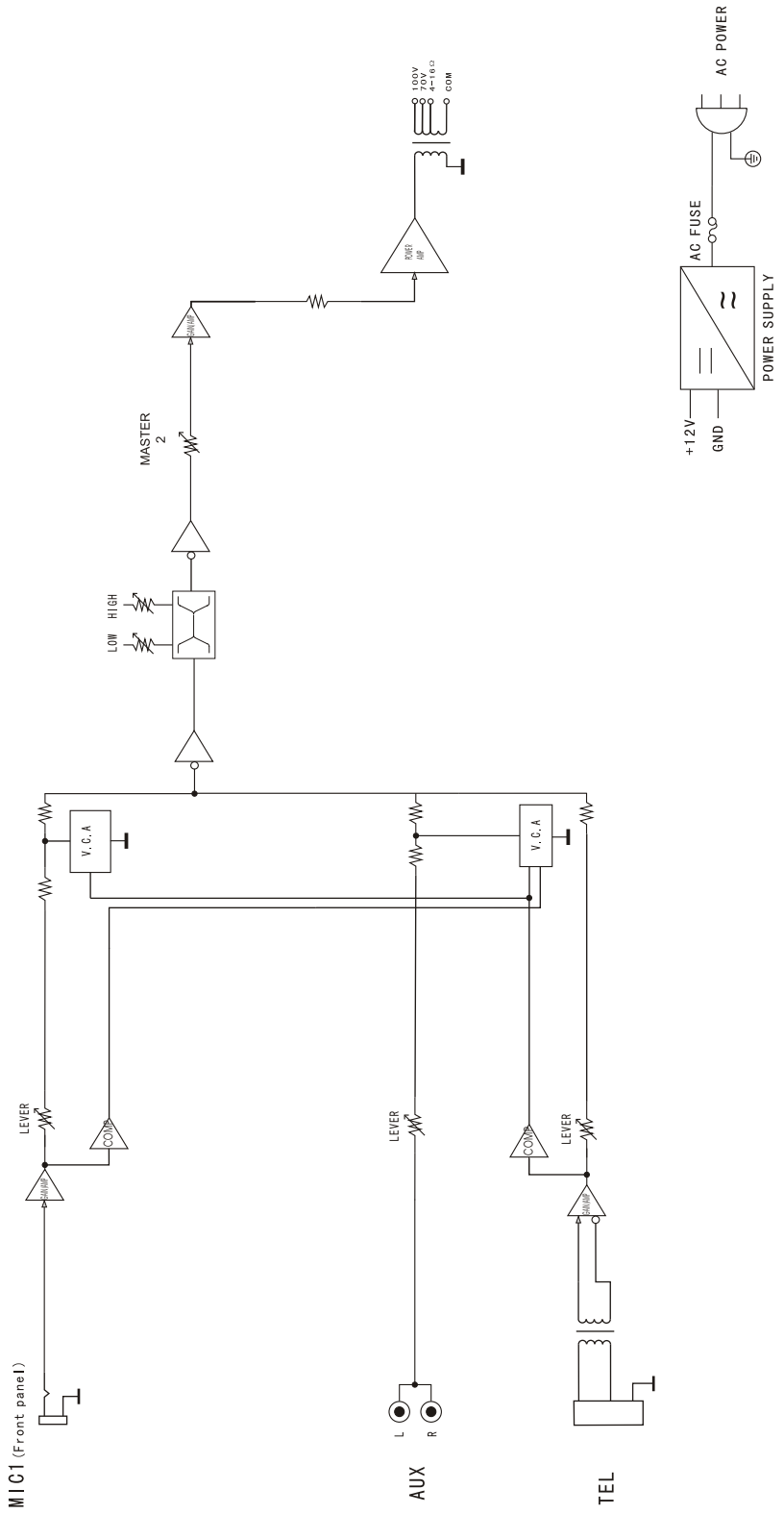
1 Tel has priority over all inputs.

2 MIC is second priority, adjust mute electric potential can override other input signal except tel signal.

## 6. APPLICATIONS



# 7. BLOCK DIAGRAM

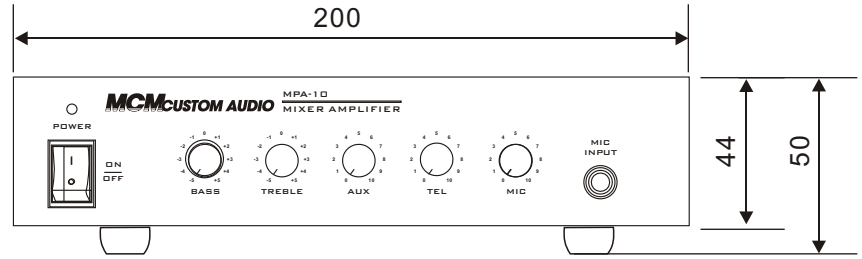


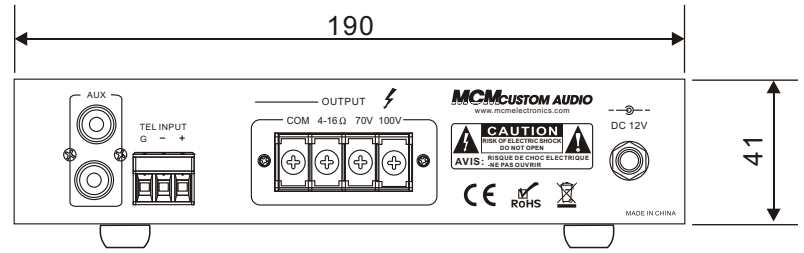
# 8. SPECIFICATIONS

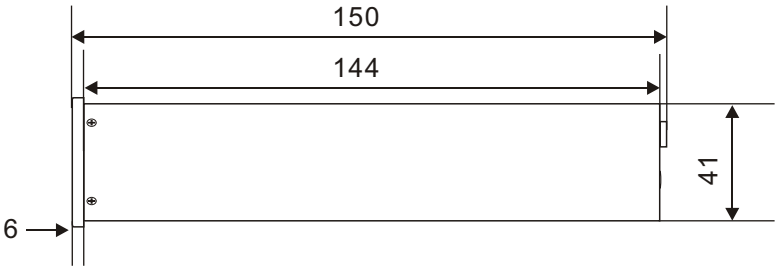
| MIXER AMPLIFIER WITH CD | |
|---|---|
| Model | MPA-10 |
| Speaker Line Input | 4~16Ω,70V,100V |
| Amplifier Section(amp In @ 1khz,8ohm Load Output) | |
| Rated maximum output power (THD 1%) | 10W |
| Input sensitivity/impedance | 1V/20Kohms |
| Frequency response(At 1KHz Half power output) | 80Hz~16KHz(+1dB/-3dB) |
| MIC input section( MIC in@1Khz, preamp out) | |
| Input sensitivity/impedance | 5mV/500ohms |
| AUX input section(AUX in@1Khz, preamp out) | |
| Input sensitivity/impedance | 300mV/500ohms |
| TEL input section(AUX in@1Khz, preamp out) | |
| Input sensitivity/impedance | 1V/500ohms |
| Power source | 12V DC |
| Power consumption | 15W |
| Net weight | 1.8Kg |
| Dimensions(mm) | 200 x150x44 |

# 9. DIMENSIONAL DIAGRAM

UNIT :mm

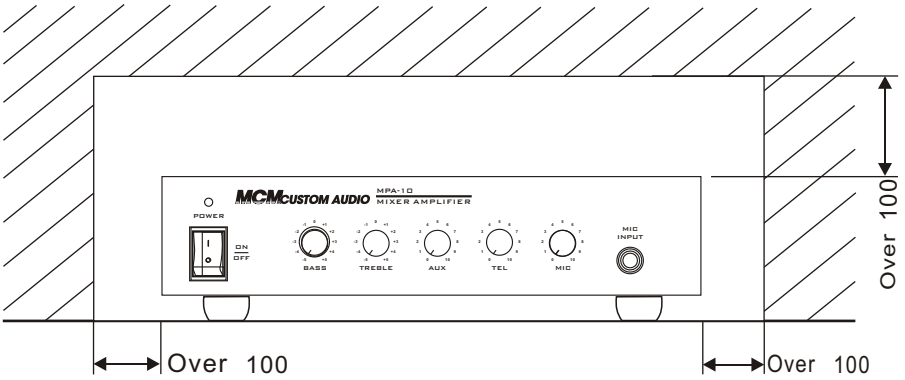



Keep the unit's all sides over 10 cm away from objects that may obstruct air flow to prevent the unit's internal temperature rise.

UNIT :mm



# PUBLIC ADDRESS SYSTEM

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VersionV0.1